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26 April 1967

MEMORANDUM

SUBJECT: Development of Trace Metal Detection Kit

1. In June 1965, Admiral Raborn, then the Director of Central Intelligence, levied an urgent requirement on the Agency. The problem was to identify the guerrilla--particularly the Viet Cong soldier or terrorist--who looked, talked and dressed like an innocent Vietnamese farmer.

2. We addressed the problem by seeking some certain field-usable and rapid method of identifying persons who had recently fired or handled weapons.

3. Our initial approach involved a modification of the Walker test for nitrites, chemical products which (unlike nitrates) are produced primarily by the rapid combustion of gunpowder. This technique was field tested in Vietnam in October 1965 and proved to be unworkable.

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4. We then went to the trace metals approach and developed the presently employed technique utilizing a simple non-toxic chemical in conjunction with ultraviolet light. This technique was extensively field tested in the United States [] and first tried in Vietnam in May 1966, eleven months after the initial requirement was levied. The technique proved immediately successful and has repeatedly demonstrated its worth in subsequent use.

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5. A contractor bid for the packaging of the chemicals was judged excessive, and prompted the decision to prepare, package and ship all system components on an in-house basis.

6. The initial testing, purchasing, packaging, shipping and TDY costs incurred from the initiation of

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the project through the introduction of the original
116 kits into Southeast Asia was less than \$10,000.

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9. A distinguished service medal, a certificate
of distinction and two certificates of merit were awarded
to the developers of the kit.

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